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2023 COASTAL MASTER PLAN  
*COMMITTED TO OUR COAST*

# MASTER PLAN DATA VIEWER AND DATA ACCESSIBILITY



**APRIL 27, 2023**

**[COASTAL.LA.GOV/OUR-PLAN](https://coastal.la.gov/our-plan) | [MASTERPLAN@LA.GOV](mailto:MASTERPLAN@LA.GOV)**



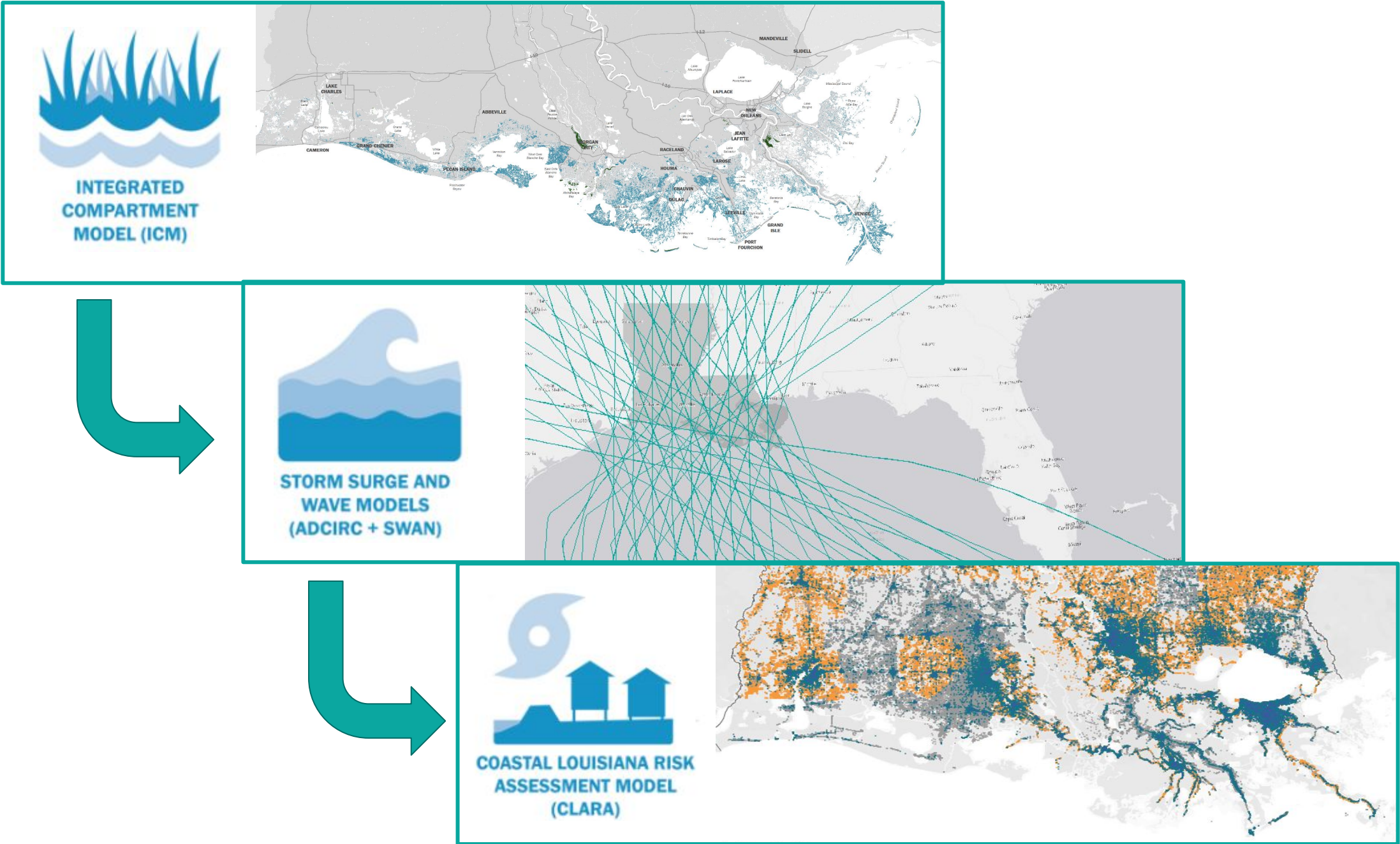
# WHAT IS THE COASTAL MASTER PLAN?

SCIENCE-BASED, STAKEHOLDER INFORMED

- Prioritization effort
  - How can the state spend its money most cost-effectively over the next 50 years to reduce storm surge-based flood risk and restore and maintain coastal wetlands?
- Developed through a process that ensures adaptive management
  - Required by law to be updated every 6 years
- Built on world class science and engineering
- Advances a comprehensive and integrated approach to restoration and risk reduction
- Incorporates extensive public input and review
- Illustrates how people and communities will experience a changing coast to allow preparation and adaptation into the future.



# MASTER PLAN MODELS

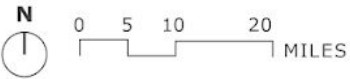
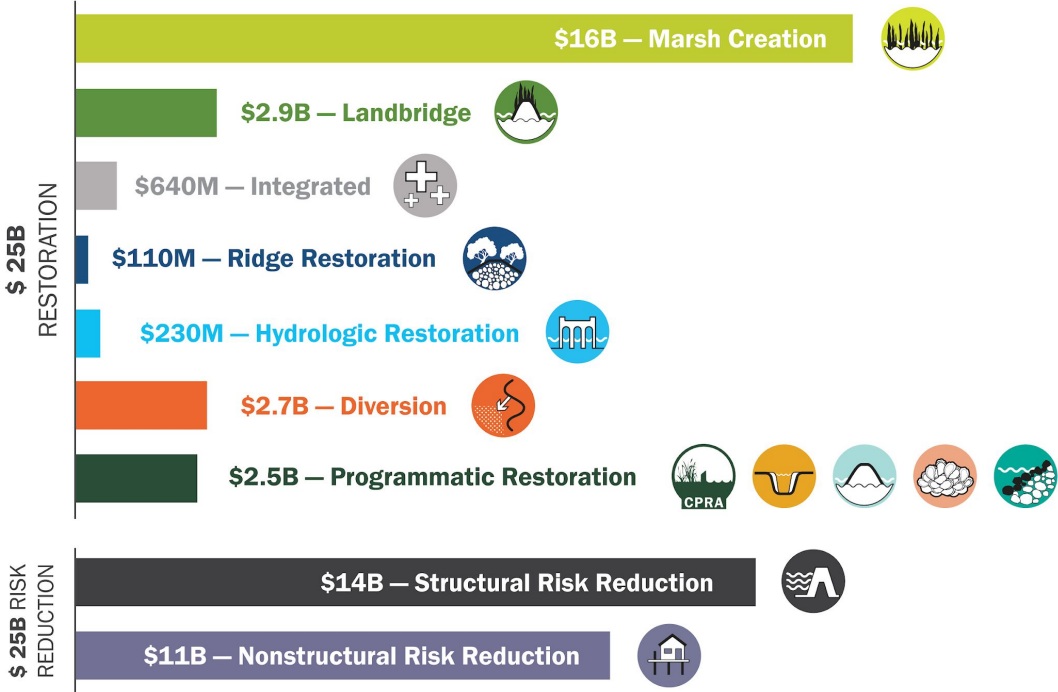
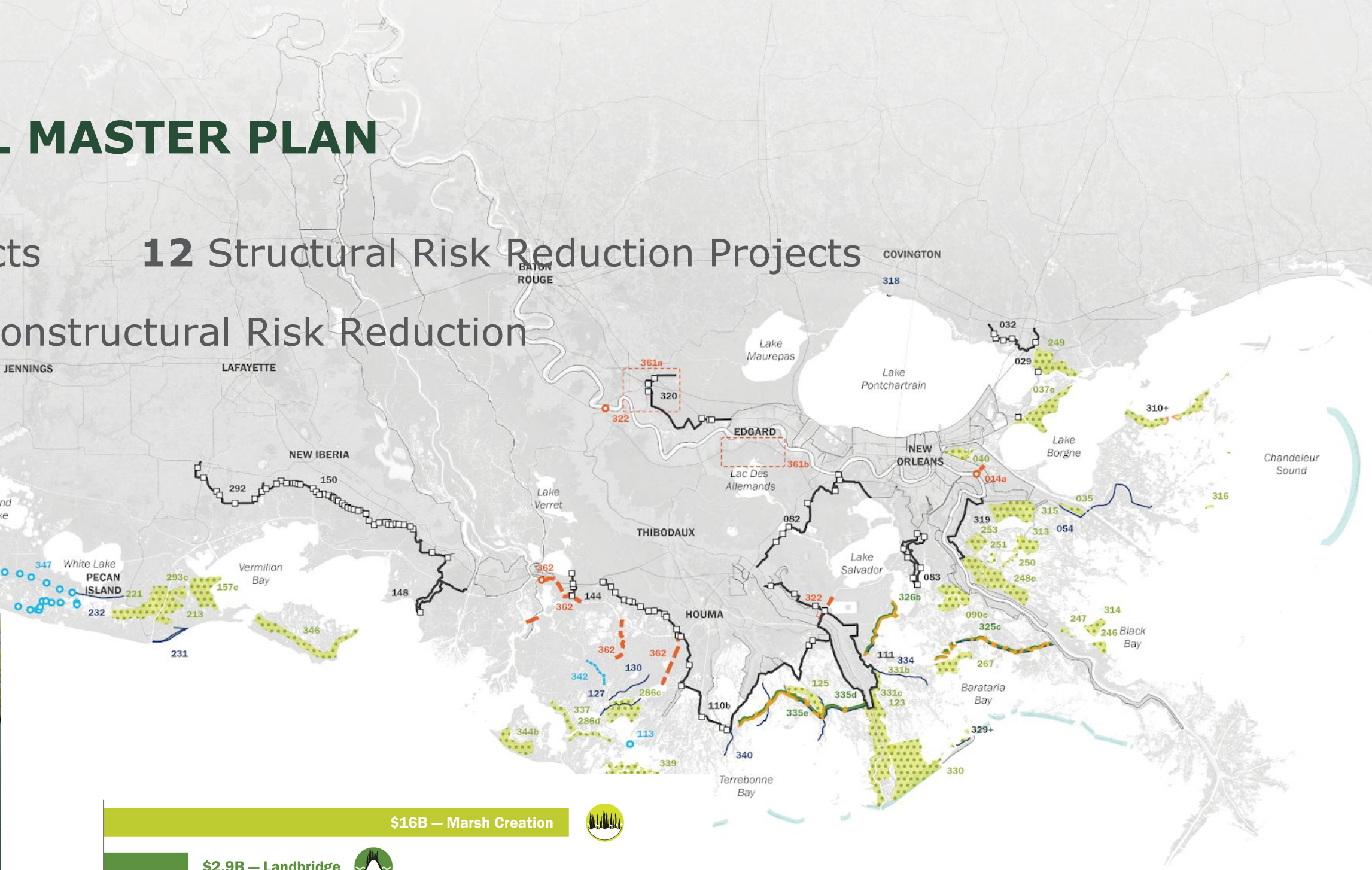
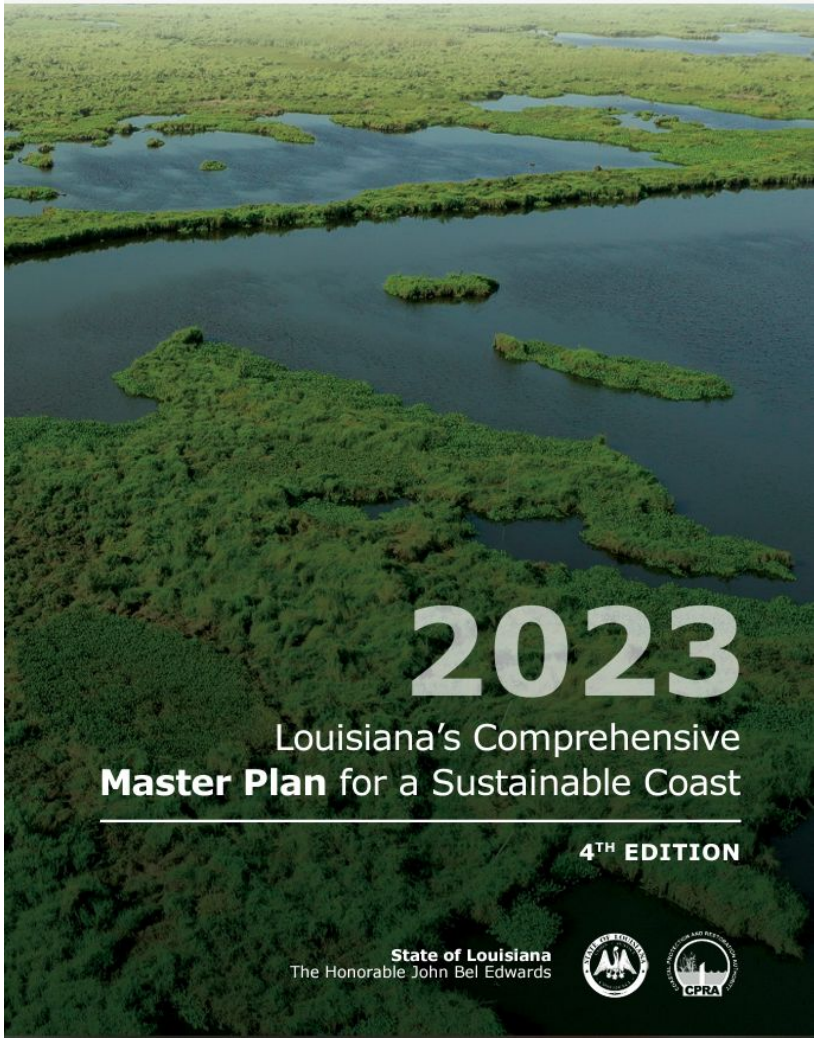




# THE 2023 COASTAL MASTER PLAN

65 Restoration Projects      12 Structural Risk Reduction Projects

\$11B for Nonstructural Risk Reduction





# BEYOND PROJECTS



The master plan is more than a list of projects



Photo courtesy of Lindsey Janies Photography  
2023 COASTAL MASTER PLAN



All photos courtesy of Louisiana Sea Grant unless otherwise noted



A scenic landscape featuring a body of water in the foreground with a small boat on the right. The middle ground is filled with tall reeds and a dense line of trees. The background shows a clear blue sky with scattered clouds. A dark green rectangular box is superimposed over the center of the image, containing the text "COMMUNICATING THE PLAN" in white, bold, sans-serif capital letters.

# COMMUNICATING THE PLAN



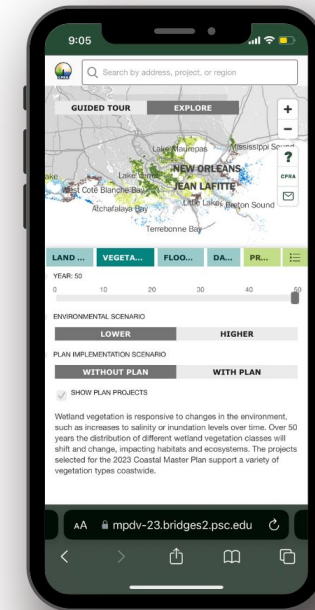
# CONTINUED OUTREACH

## COMMUNICATING THE 2023 PLAN

- Continued outreach, education, dialogue about the plan and the future of coastal Louisiana
  - Stakeholder groups, communities, citizens, students
- Partner with libraries to host master plan materials
- Provide training on MPDV for NGO, other partners, public
- Present aspects of the plan at conferences
  - State of the Coast
  - CERF



[mpdv.coastal.la.gov](https://mpdv.coastal.la.gov)

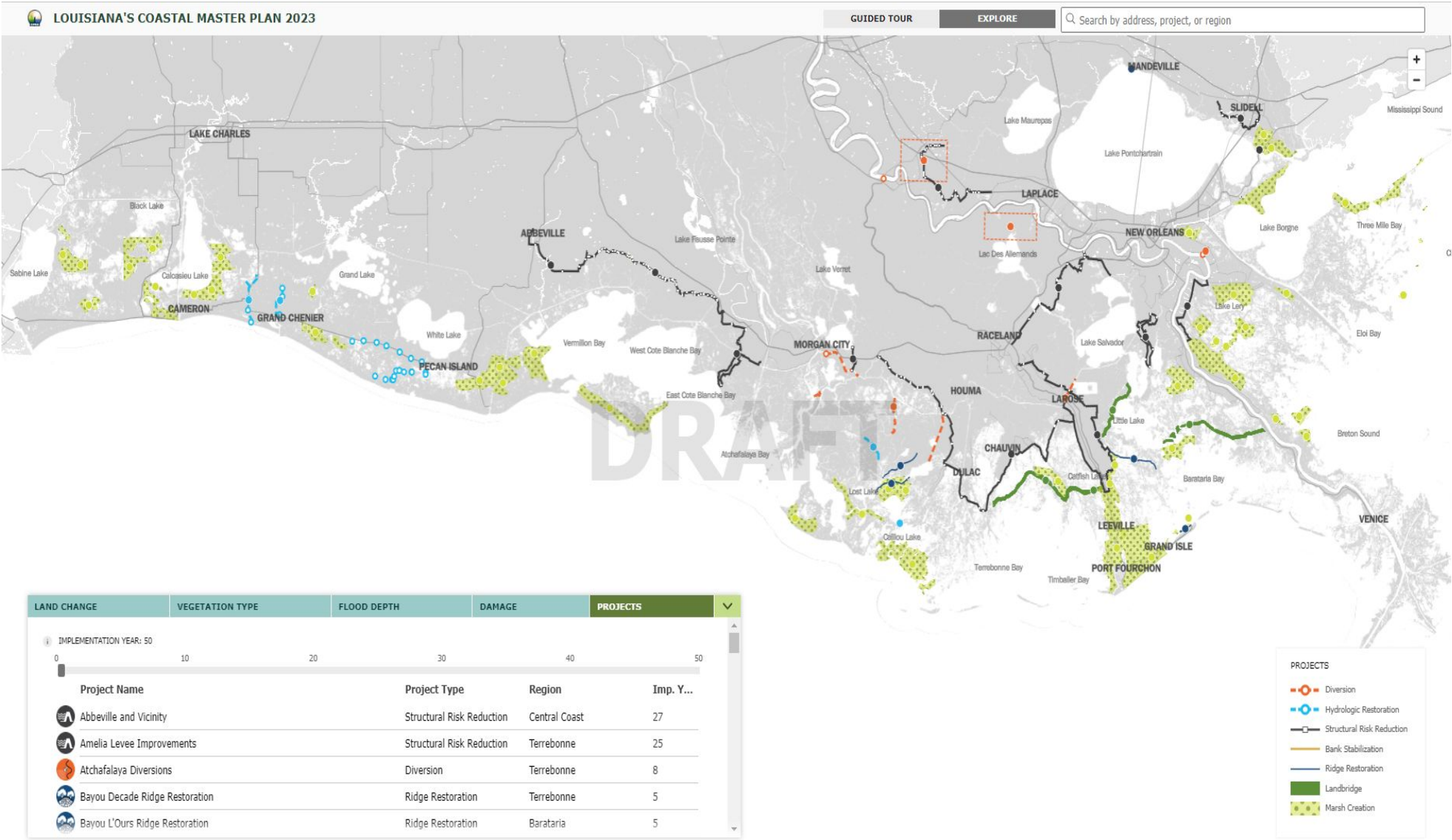


# RESOURCES

## COMMUNICATING THE 2023 PLAN

- Master Plan Data Viewer
- Project Fact Sheets

[mpdv.coastal.la.gov](http://mpdv.coastal.la.gov)

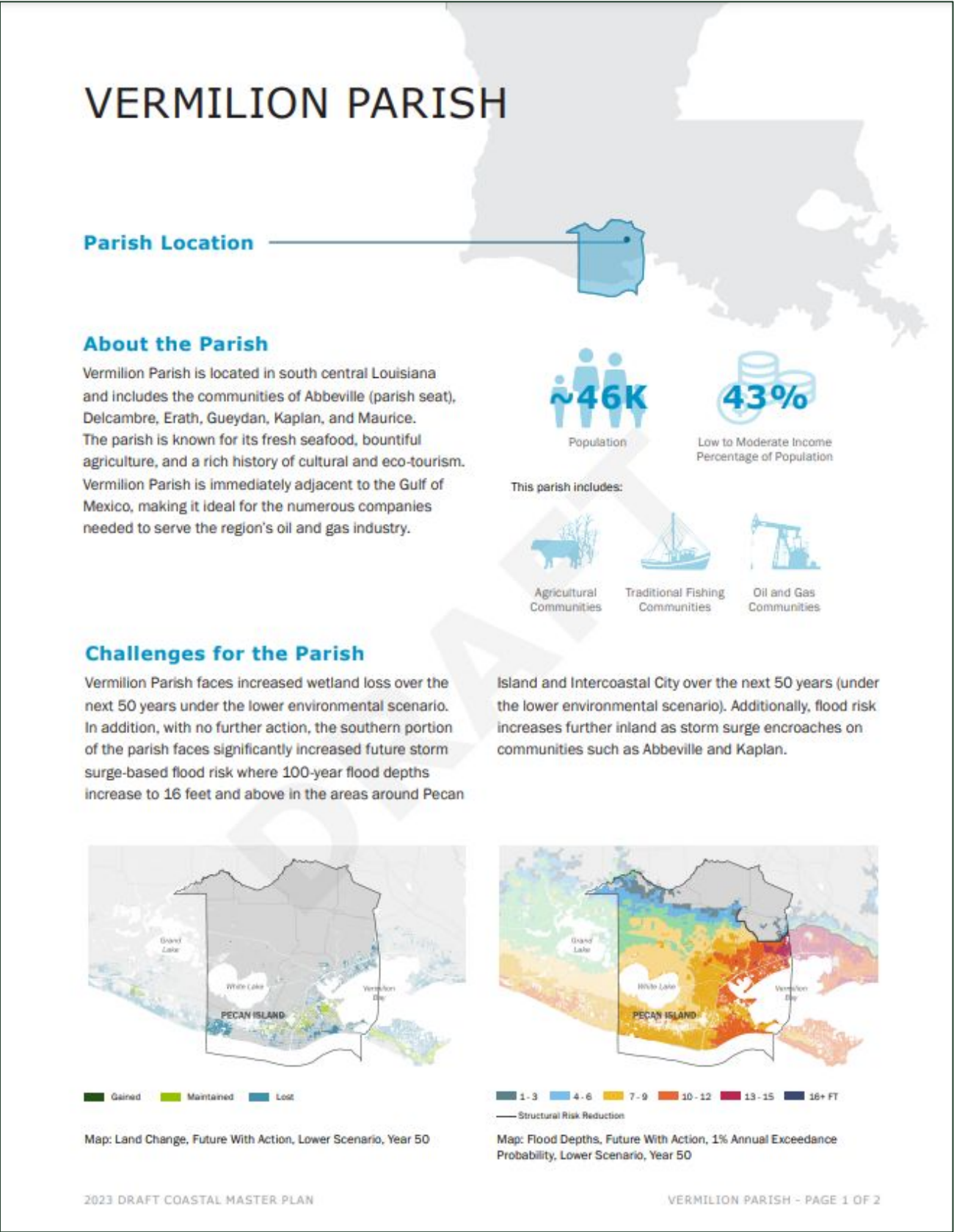




# RESOURCES

COMMUNICATING THE 2023 PLAN

- Fact Sheets
  - Regional
  - **Parish**
  - Project
  - Community
  - **Community Data Sheets**

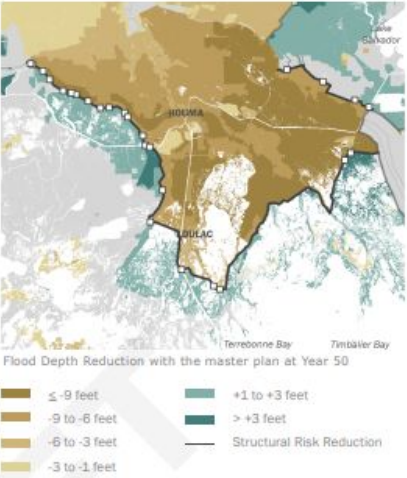
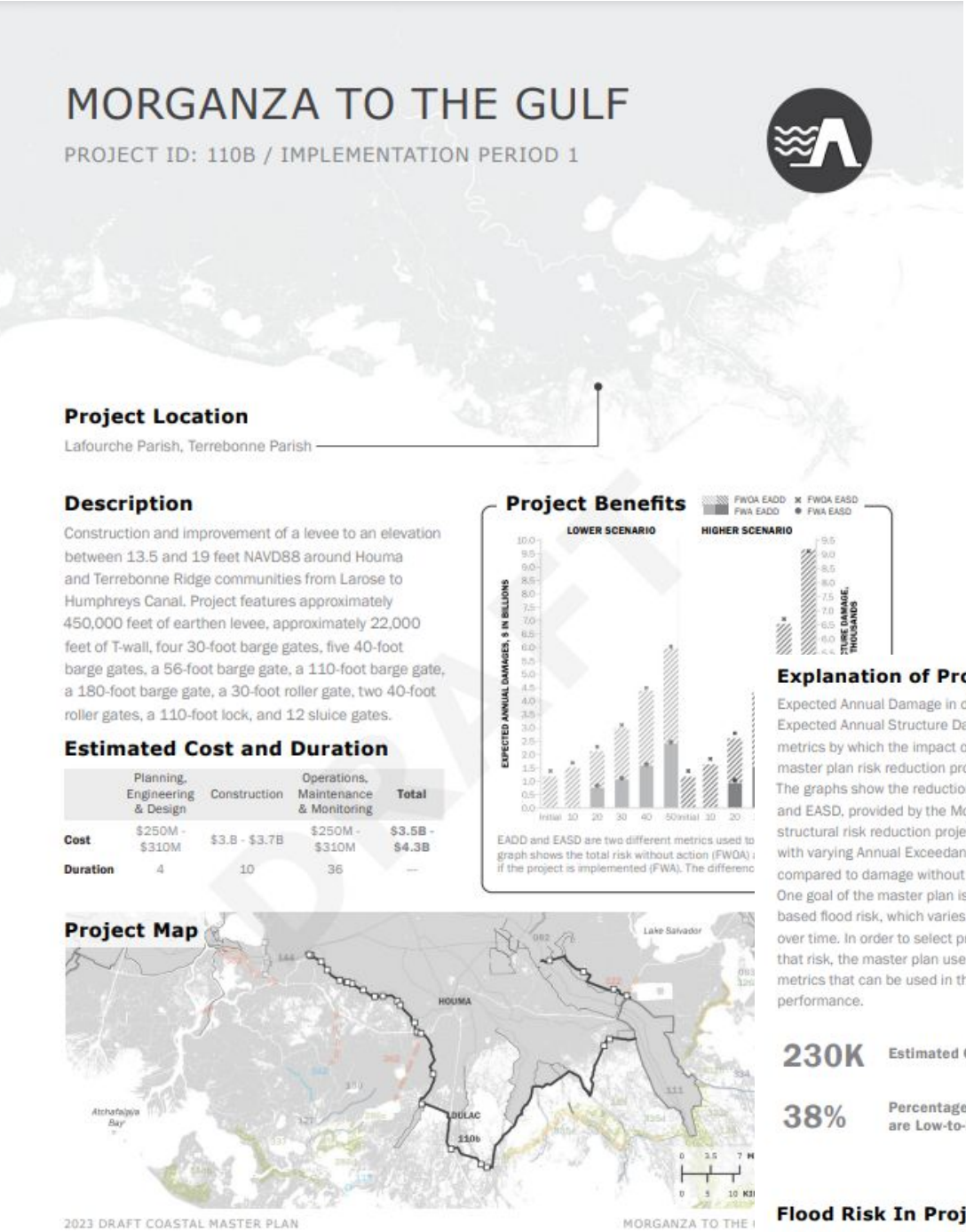




# RESOURCES

## COMMUNICATING THE 2023 PLAN

- Fact Sheets
  - Regional
  - Parish
  - Project
  - Community
  - Community Data Sheets



**230K** Estimated Current Population

**38%** Percentage of Population who are Low-to-Moderate Income

#### Flood Risk In Project Area

Storm surge-based flooding is and will continue to be a risk for coastal Louisiana communities. The table below shows EADD and EASD for the project area now, and at years 20 and 50, both with and without the Morganza to the Gulf project implemented. Damage avoided because of the project is also provided.

	Initial Conditions	FWOA (YR20/50)	FWA (YR20/50)	Losses Avoided (YR20/50)
<b>Lower Scenario</b>				
EADD (\$)	\$1.2B	\$2.1B/\$5.9B	\$780M/\$2.4B	\$1.3B/\$3.5B
EASD (#Structures)	1.3K	2.2K/3.7K	810/2.4K	1.4K/3.4K
<b>Higher Scenario</b>				
EADD (\$)	\$1.2B	\$2.6B/\$9.7B	\$950M/\$4.8B	\$1.6B/\$4.9B
EASD (#Structures)	1.3K	2.7K/9.1K	990/4.7K	1.7K/4.4K

#### Assets and Exposure

Communities and individuals experience the impacts of storm surge in a variety of ways. While the master plan looks at damage in the project selection process, other considerations like impacts on residential structures, public services, and other assets are also important to understand. The Morganza to the Gulf project provides a barrier to storm surge that provides an increased level of protection for the assets shown below.





# RESOURCES

## COMMUNICATING THE 2023 PLAN

- Fact Sheets
  - Regional
  - Parish
  - Project
  - Community
- Community Data Sheets
  - EADD / EASD
    - Initial Conditions
    - Yr 20 / Yr 50
      - FWOA
      - FWOA + NS
      - FWMP
      - FWMP + NS
  - Nonstructural counts & costs
  - Structures exposed to moderate and severe flooding
    - Initial Conditions
    - Yr 20 / 50
      - FWOA
      - FWMP

COMMUNITY DATASHEET | COMMUNITY ID: 186 | Mandeville/Covington/Madisonville/Abita Springs-St Tammany-PO-out

EXPECTED ANNUAL DOLLAR DAMAGE (EADD) – LOWER SCENARIO

Asset Type	InitCond	InitCond+NS	FWOA Yr20	FWOA+NS Yr20	FWMP Yr20	FWMP+NS Yr20	FWOA Yr50	FWOA+NS Yr50	FWMP Yr50	FWMP+NS Yr50
Small Residential (single-family; manufactured homes; duplex)	\$174,172,000	\$27,793,000	\$243,136,000	\$45,192,000	\$118,544,000	\$17,516,000	\$417,236,000	\$124,382,000	\$261,526,000	\$48,662,000
Other Multi-family Residential	\$7,459,000	\$6,263,000	\$10,230,000	\$9,139,000	\$4,821,000	\$3,841,000	\$19,257,000	\$18,392,000	\$9,548,000	\$8,719,000
Commercial; Industrial; Agricultural	\$28,722,000	\$28,722,000	\$33,515,000	\$33,515,000	\$23,476,000	\$23,476,000	\$46,439,000	\$46,439,000	\$34,394,000	\$34,394,000
Other Structural (public; education; religion)	\$12,038,000	\$12,038,000	\$15,594,000	\$15,594,000	\$7,548,000	\$7,548,000	\$27,424,000	\$27,424,000	\$16,803,000	\$16,803,000
Non-structural Assets(crops; vehicles; roads)	\$7,448,000	\$7,448,000	\$10,066,000	\$10,066,000	\$6,595,000	\$6,595,000	\$16,190,000	\$16,190,000	\$11,787,000	\$11,787,000
Total	\$229,840,000	\$82,265,000	\$312,541,000	\$113,506,000	\$160,984,000	\$58,975,000	\$526,546,000	\$232,827,000	\$334,058,000	\$120,365,000

EXPECTED ANNUAL STRUCTURAL DAMAGE (EASD) – LOWER SCENARIO

Asset Type	InitCond	InitCond+NS	FWOA Yr20	FWOA+NS Yr20	FWMP Yr20	FWMP+NS Yr20	FWOA Yr50	FWOA+NS Yr50	FWMP Yr50	FWMP+NS Yr50
Small Residential (single-family; manufactured homes; duplex)	152.08	25.42	219.58	41.97	107.06	16.03	384.55	113.08	244.49	45.84
Other Multi-family Residential	2.22	1.96	2.85	2.63	1.3	1.09	4.54	4.36	2.46	2.29
Commercial; Industrial; Agricultural	5.24	5.24	6.81	6.81	4.51	4.51	10.31	10.31	7.43	7.43
Other Structural (public; education; religion)	2.53	2.53	3.95	3.95	1.86	1.86	7.72	7.72	4.81	4.81
Non-structural Assets(crops; vehicles; roads)	0	0	0	0	0	0	0	0	0	0
Total	162.07	35.16	233.19	55.35	114.74	23.5	407.12	135.47	259.18	60.37

InitCond

InitCond+NS

FWOA Yr #

FWOA+NS

FWMP

FWMP+NS

Storm surge based flood risk under initial conditions

Residual storm-surge based flood risk under initial conditions plus full non-structural implementation assuming 100% participation

Storm-surge based flood risk at year # under a future without action

Residual storm-surge based flood risk at year # under a future without action plus full non-structural implementation assuming 100% participation

Residual storm-surge based flood risk at year # under a future with master plan structural risk reduction projects

Residual storm-surge based flood risk at year # under a future with master plan structural risk reduction projects plus full non-structural implementation assuming 100% participation

This community datasheet was automatically generated from the 2023 Master Plan Project Development Database. Contact masterplan@la.gov with any questions or clarifications.

COMMUNITY DATASHEET | COMMUNITY ID: 186 | Mandeville/Covington/Madisonville/Abita Springs-St Tammany-PO-out

NONSTRUCTURAL PROJECT ATTRIBUTES

Nonstructural Mitigation Measure	Nonstructural Candidates under Initial Conditions	Nonstructural Candidates under FWOA Year 30
Floodproofing	1857	1881
Home Elevation	3225	3784
Voluntary Acquisition	35	43

NONSTRUCTURAL PROJECT COSTS

Nonstructural Mitigation Measure	Nonstructural Costs under Initial Conditions	Nonstructural Costs under FWOA Year 30
Floodproofing	\$204,739,000	\$208,808,000
Home Elevation	\$829,241,000	\$1,004,126,000
Voluntary Acquisition	\$30,556,000	\$43,009,000

ASSETS WITH SEVERE FLOOD EXPOSURE FROM THE 10% ANNUAL EXCEEDANCE PROBABILITY DEPTH – LOWER SCENARIO

Asset Type	Total Count of Assets	Assets with Severe Flood Exposure at 0.1 AEP Initial Conditions	Assets with Severe Flood Exposure at 0.1 AEP under FWOA Year 20	Assets with Severe Flood Exposure at 0.1 AEP under FWMP Year 20	Assets with Severe Flood Exposure at 0.1 AEP under FWOA Year 50	Assets with Severe Flood Exposure at 0.1 AEP under FWMP Year 50
Small Residential (single-family; manufactured homes; duplex)	35982	1803	2023	1547	2558	2046
Other Multi-family Residential	669	60	65	58	84	65
Commercial; Industrial; Agricultural	1444	99	108	86	122	108
Other Structural (public; education; religion)	419	15	16	13	23	17
Schools and Daycares	71	1	2	3	0	2
Hospitals	8	0	0	0	0	0
Nursing Homes	41	0	0	0	0	0
Emergency Services	33	2	2	3	2	2
Water Supply	189	23	27	32	23	27
Gas Stations	18	1	1	1	1	1
Electrical Substations and Power Plants	14	2	2	2	2	2

Flood Exposure

Moderate Exposure

Severe Exposure

There is at least 1-ft of flooding in the vicinity of the structure.

There is flooding above the first floor elevation of the structure.

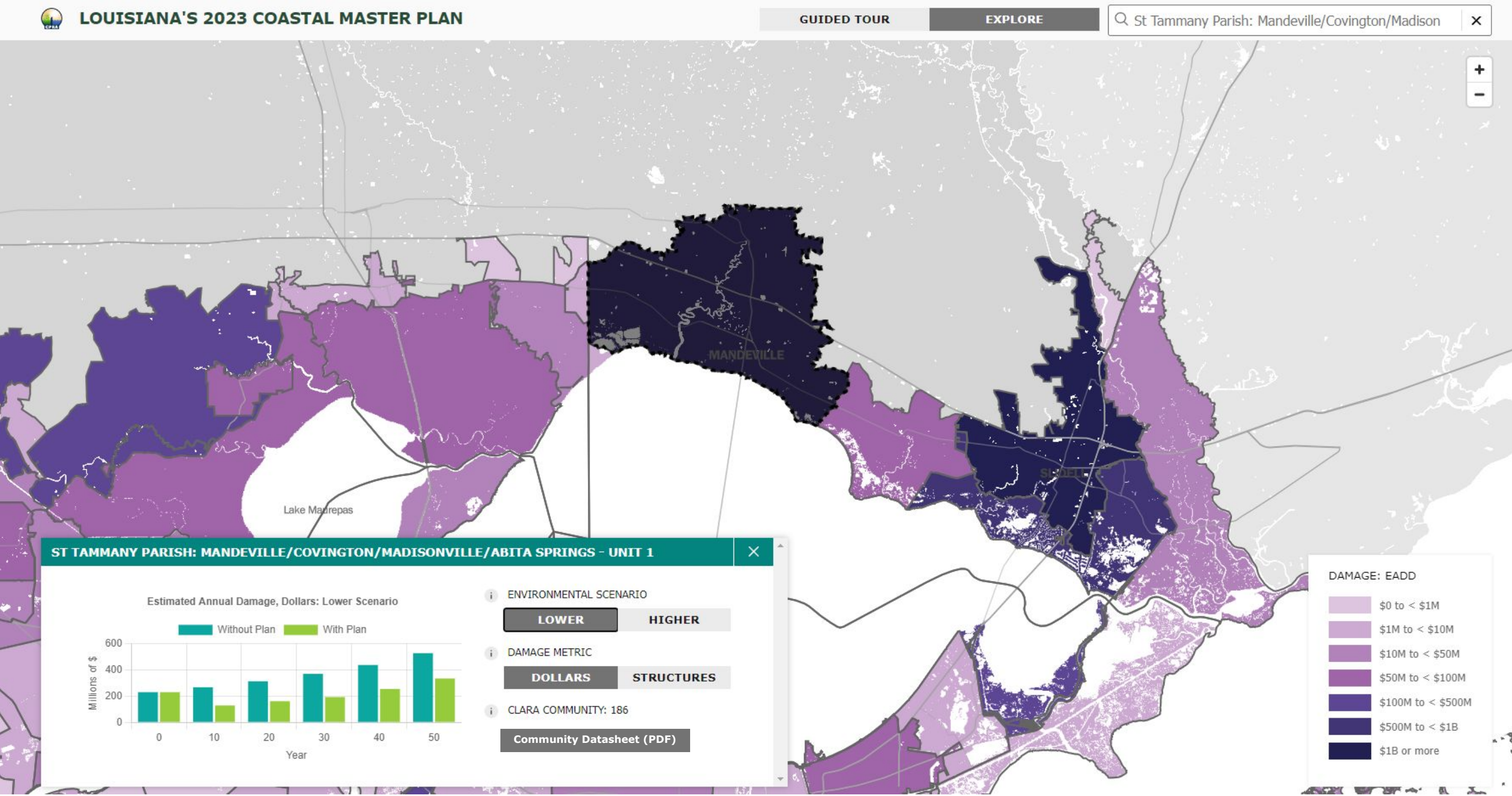
There is flooding at least 3-ft above the first floor elevation of the structure.

This community datasheet was automatically generated from the 2023 Master Plan Project Development Database. Contact masterplan@la.gov with any questions or clarifications.



# RESOURCES

## COMMUNICATING THE 2023 PLAN

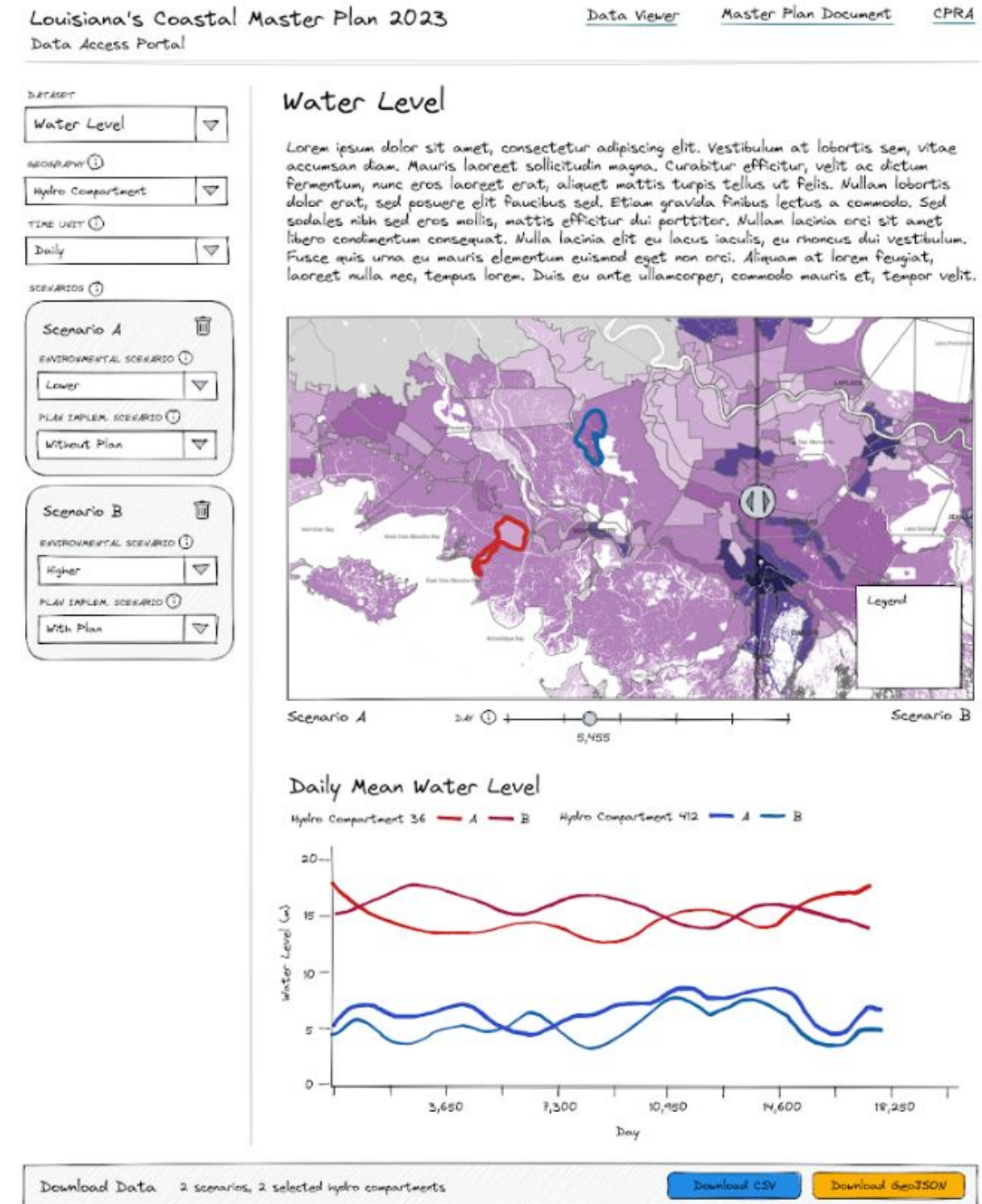




# RESOURCES

## DATA ACCESS PORTAL

- CPRA is developing a new **Data Access Portal (DAP)** to facilitate data requests
  - Central location for data sets
  - Provide select online data visualizations and image exports
    - by spatial unit
    - by variable(s)
  - Data download availability
    - bulk download, or
    - subset for a selected region
- CPRA will provide training on DAP for researchers, academics, others who are interested





# RESOURCES

## DATA ACCESS PORTAL

- Preliminary list of data that will be available in **MP-DAP**:
  - model grids
  - initial condition landscape rasters (land/water, DEM, vegetation)
  - FWOA & FWMP raster outputs from any model year of:
    - land/water
    - elevation
    - vegetation
    - flood depth
    - habitat suitability indices

Louisiana's Coastal Master Plan 2023  
Data Access Portal

[Data Viewer](#)

[Master Plan Document](#)

[CPRA](#)

DATASET

Water Level

REQUIRE

Hydro Compartment

TIME UNIT

Daily

SCENARIOS

Scenario A

ENVIRONMENTAL SCENARIO

Lower

PLAN IMPL. SCENARIO

Without Plan

Scenario B

ENVIRONMENTAL SCENARIO

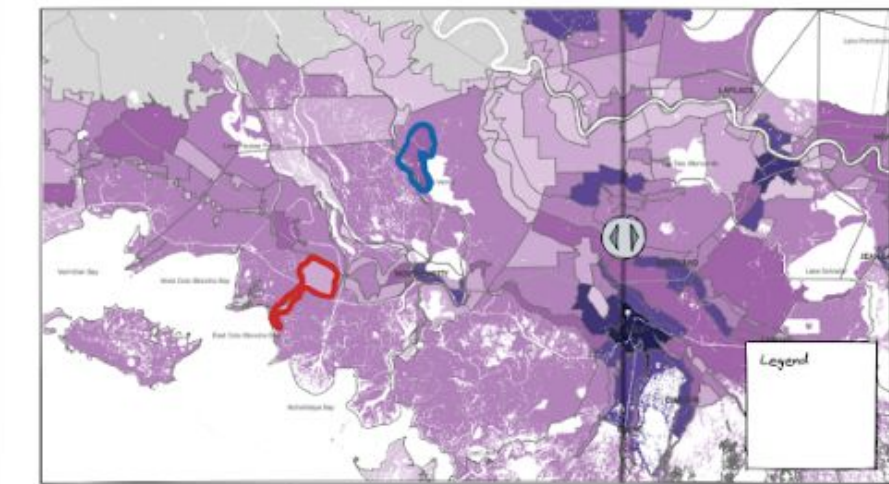
Higher

PLAN IMPL. SCENARIO

With Plan

### Water Level

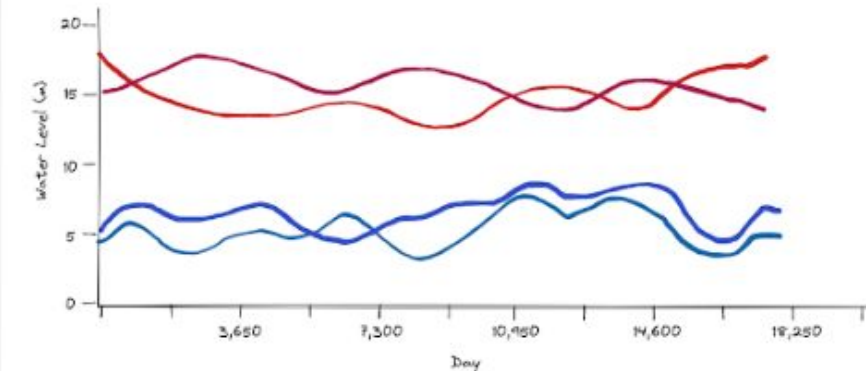
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Scenario A 3,455 Scenario B

### Daily Mean Water Level

Hydro Compartment 36 A B Hydro Compartment 412 A B



Download Data 2 scenarios, 2 selected hydro compartments

[Download CSV](#)

[Download GeoJSON](#)



# RESOURCES

## DATA ACCESS PORTAL

- Preliminary list of data that will be available in **MP-DAP**:
  - FWOA and FWMP timeseries of:
    - daily water levels
    - daily salinity
    - daily temperature
    - daily tidal range
    - daily total suspended sediment
    - annual mineral sediment deposition
    - annual organic matter accretion
    - annual land area

Louisiana's Coastal Master Plan 2023  
Data Access Portal

[Data Viewer](#)

[Master Plan Document](#)

[CPRA](#)

DATASET

Water Level

HYDROCOMPARTMENT

Hydro Compartment

TIME UNIT

Daily

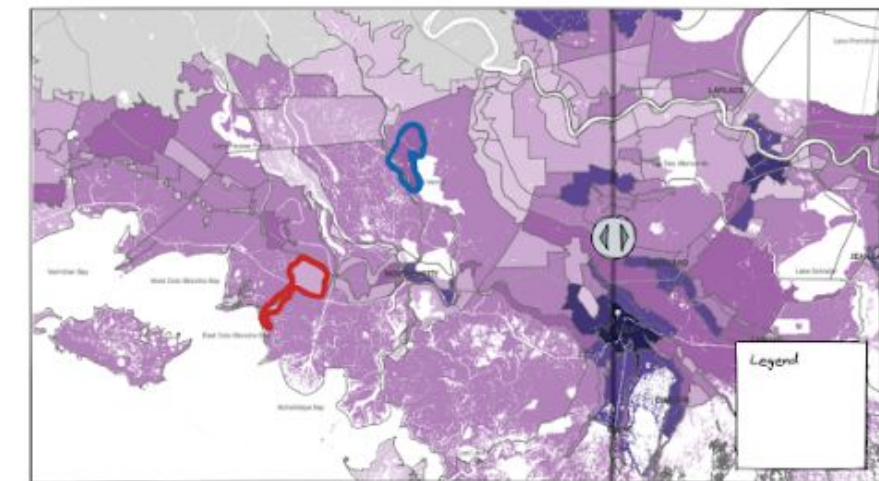
SCENARIOS

Scenario A  
ENVIRONMENTAL SCENARIO  
Lower  
PLAN IMPL. SCENARIO  
Without Plan

Scenario B  
ENVIRONMENTAL SCENARIO  
Higher  
PLAN IMPL. SCENARIO  
With Plan

### Water Level

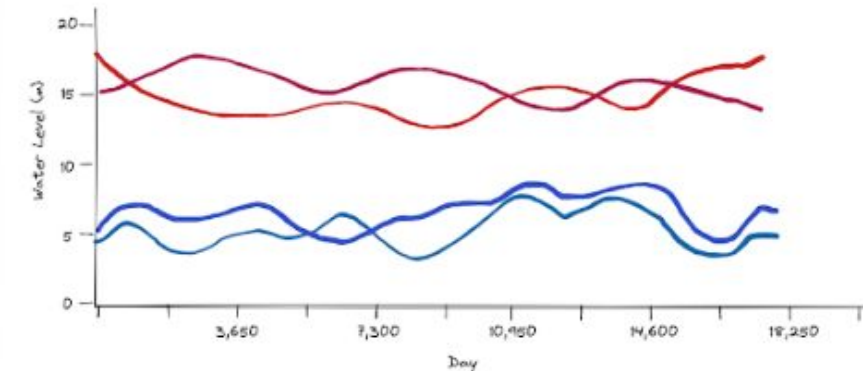
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Scenario A DAY 1 5,455 Scenario B

### Daily Mean Water Level

Hydro Compartment 36 A B Hydro Compartment 412 A B



Download Data 2 scenarios, 2 selected hydro compartments

[Download CSV](#)

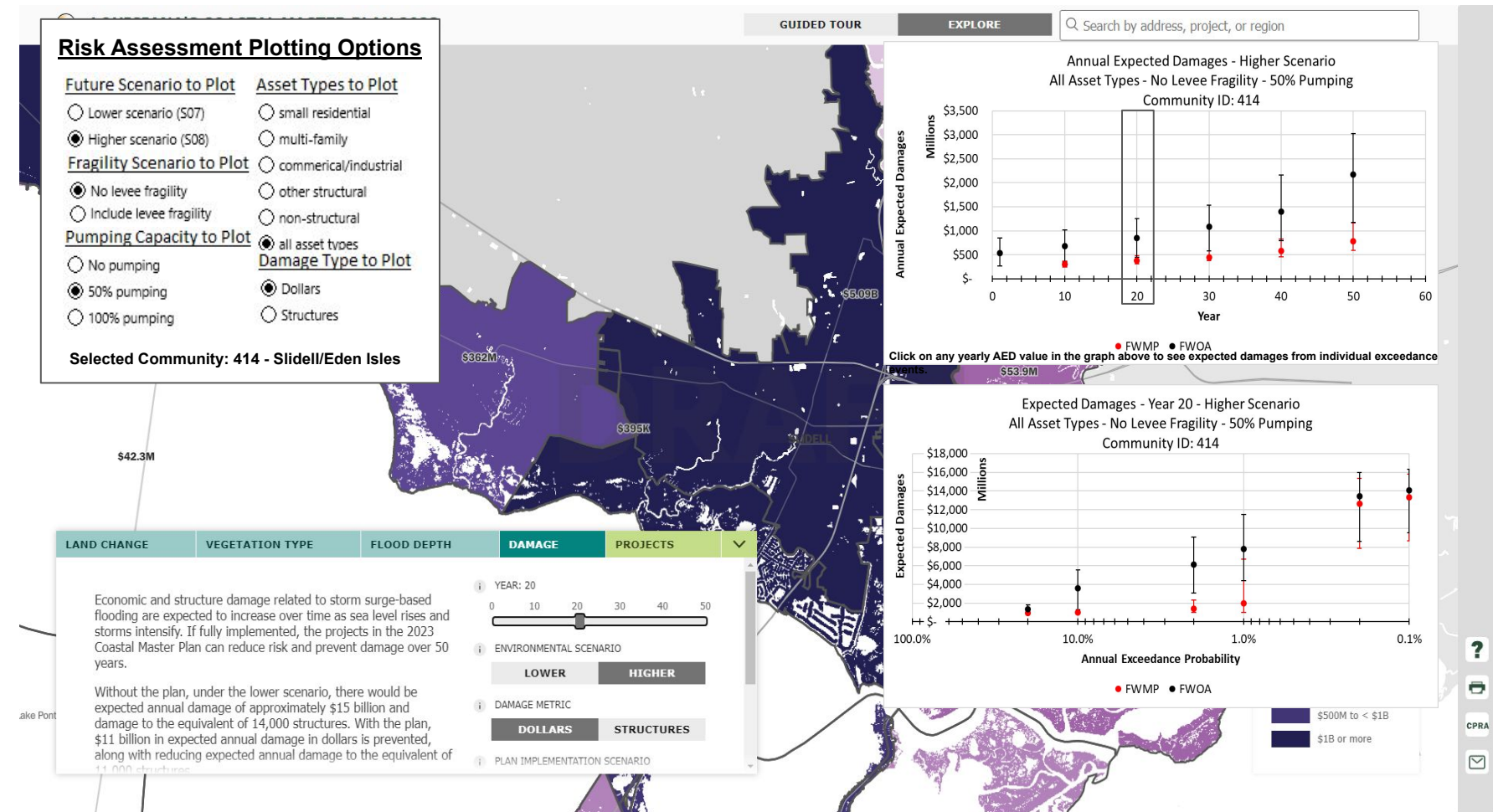
[Download GeoJSON](#)



# RESOURCES

## DATA ACCESS PORTAL

- Preliminary list of data that will be available in **MP-DAP**:
  - FWOA and FWMP risk data for each decade of:
    - expected annual damages (dollars and structures)
    - damages by annual exceedance probability
  - All data will be ‘sliceable’ by a variety of variables





# RESOURCES

## COMMUNICATING THE 2023 PLAN

### Additional Reporting

- Model Documentation
- Exploratory analysis
  - High Tide Flooding Report
  - Historic Storm Reports
    - Ike, Rita, Barry, Ida, Isaac
  - Storms and degraded barrier islands
  - Storms and coastal forests
- Available online @ [coastal.la.gov/our-plan/2023-coastal-master-plan/2023-plan-appendices](https://coastal.la.gov/our-plan/2023-coastal-master-plan/2023-plan-appendices)

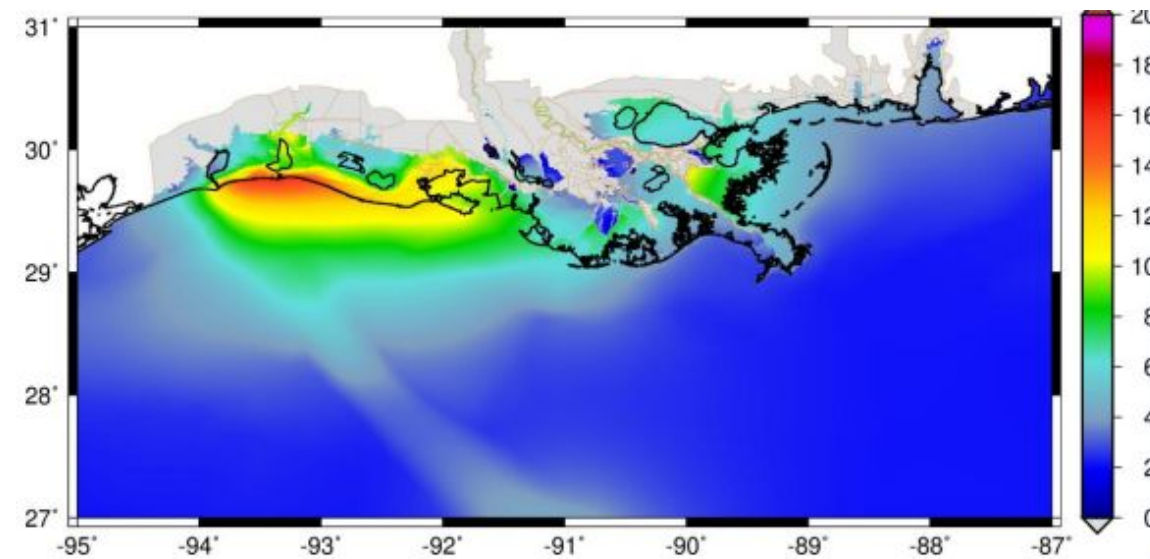


Figure 2. Peak water surface elevation (ft, NAVD88) for a Hurricane Rita-like storm simulated in Year 0.

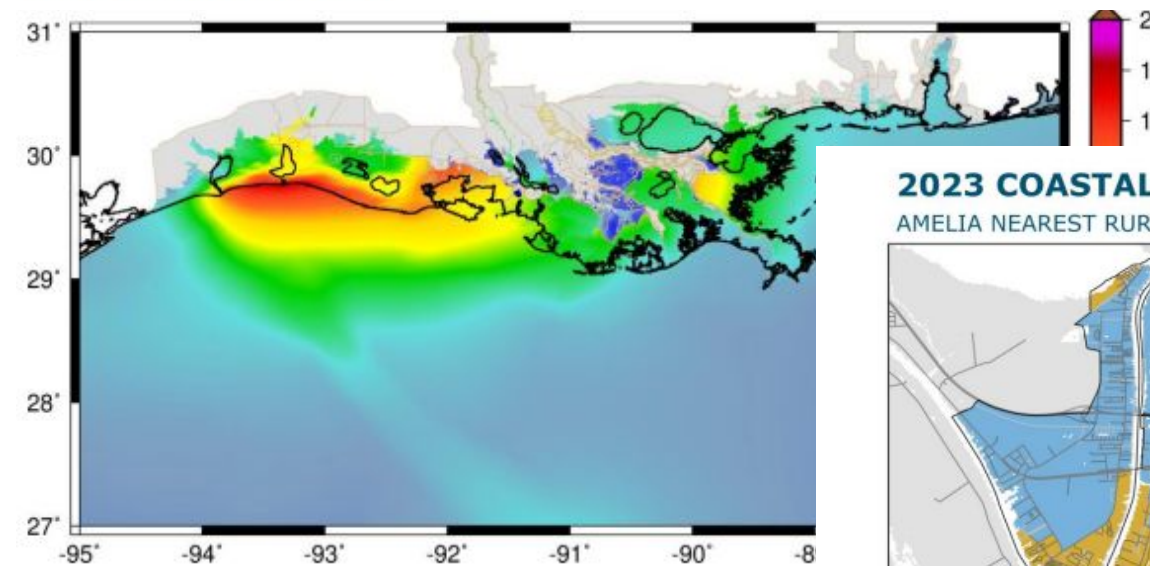


Figure 4. Peak water surface elevation (ft, NAVD88) for a storm simulated in the FWA, S07, Year 50.

### 2023 COASTAL MASTER PLAN

#### AMELIA NEAREST RURAL HEALTH CLINIC DRIVE TIME



Figure 21. Drive time to nearest rural health clinic in Amelia, Louisiana.



# RESOURCES

## COMMUNICATING THE 2023 PLAN

### Model Source Code

- Publicly available on GitHub
- All ICM is open source and currently posted
- Additional post-processors available
- [www.github.com/CPRA-MP](https://www.github.com/CPRA-MP)

The screenshot shows the GitHub profile page for the 'LA CPRA Master Plan Team'. The header includes the GitHub logo, a search bar, and navigation links for Pulls, Issues, Codespaces, Marketplace, and Explore. The team's profile information shows the 'LA CPRA Master Plan Team' with a location in Baton Rouge, LA, and a website link. A 'Follow' button is present. Below the profile, a navigation bar shows 'Overview' as the active tab, with links to Repositories (17), Projects, Packages, Teams, People (3), and Settings. The 'Popular repositories' section displays six repositories: 'ICM' (Python, 2 stars, 2 forks), 'ICM\_Hydro' (Fortran, 1 star, 3 forks), 'ICM\_HSI' (Python, 1 star, 2 forks), 'ICM\_LAVegMod' (Python), 'ICM\_BIDEM' (Fortran), and 'ICM\_Morph' (Fortran). All are marked as 'Public'. On the right, a sidebar shows 'View as: Public', a note about viewing READMEs, a link to create a README, and sections for 'Discussions' and 'People' with an 'Invite someone' button. At the bottom, a 'Repositories' section has a search bar and filters for Type, Language, Sort, and a 'New' button. The first repository shown is 'ICM' (Public), the 'Master Plan 2023 ICM repo'.



# RESOURCES

## COMMUNICATING THE 2023 PLAN

### Recorded Presentations

- Introductory and technical presentations
- available @ [coastal.la.gov/our-plan/2023-coastal-master-plan/outreach/](https://coastal.la.gov/our-plan/2023-coastal-master-plan/outreach/)

#### Master Plan 101

Presenter: Stuart Brown, CPRA  
Level of Detail: Introductory

The Master Plan 101 presentation is intended to serve as an introduction and a broad overview of both CPRA and the master plan development process. To download the corresponding presentation slides, [click here](#).



#### Master Plan Public Hearing

Presenter: Stuart Brown, CPRA  
Level of Detail: Introductory

This presentation was given during each official public hearing prior to the spoken comments from the audience for the public record. The 2023 Coastal Master Plan comment period ends March 25, 2023. For information on the various ways to provide an official comment, click [here](#). To download the corresponding presentation slides, click [here](#).



#### Technical Modeling Update Webinar#1

Presenter: Eric White, CPRA  
Level of Detail: Technical

The first webinar was held on June 16, 2020 to provide a more in-depth and technical discussion of the overall modeling process and to lay a technical foundation for future 2023 Coastal Master Plan modeling discussions. To download the corresponding presentation slides, [click here](#).

As the webinar is 3 hours, please find below the list of presented topics with the corresponding times that mark when each topic's presentation begins. Please note that each presentation topic is followed by Q&A.



#### The Planning Tool

Presenter: David Groves, RAND Corporation  
Level of Detail: General

This presentation describes how the Planning Tool is expected to work in the 2023 Coastal Master Plan process including: a general overview of how the Planning Tool is used for optimization (objective functions and constraints), project selection, and exploration (e.g., uncertainty). To download the corresponding presentation slides, click [here](#).

Connections to other materials: [Planning Tool Overview](#)





# QUESTIONS

